

CLAIMS

What is claimed is:

1. A burner, comprising:

a burner body including an inlet opening at one end thereof and an outlet opening at a second end thereof;
a nozzle assembly disposed in said outlet opening of said burner body, said nozzle assembly including a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole, and a tube member disposed in said central hole and extending axially beyond said outlet opening of said burner body.

2. The burner according to claim 1, wherein said tube member includes a first end and a second end wherein said first end has a larger diameter than said second end.

3. The burner according to claim 1, further comprising a bracket mounted to said burner body and including a pair of radially inwardly extending lips that extend in front of said nozzle assembly.

4. The burner according to claim 1, further comprising a bracket assembly mounted to said burner body and defining a pair of pockets extending radially from said burner body and communicating with openings disposed in said burner body.

5. The burner according to claim 4, wherein said bracket assembly includes a pair of radially inwardly extending lips that extend in front of said nozzle assembly.

6. The burner according to claim 4, wherein said bracket assembly includes a bottom bracket and a top bracket that are connected to one another and encircle said burner body.

7. The burner according to claim 4, wherein said bracket assembly includes a bottom bracket and a top bracket that are welded together.

8. The burner according to claim 1, further comprising a bracket assembly mounted to said burner body, said bracket assembly including a pair of radially extending flanges with locating slots disposed in an edge thereof for locating the burner in a burner box.

9. A nozzle for a burner, comprising:
a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole; and
a tube member disposed in said central hole and including a first end and a second end wherein said first end has a larger diameter than said second end.

10. The nozzle according to claim 9, wherein said tube member is welded to said disc-like member.

11. The nozzle according to claim 9, wherein said center hole in said disc-like member has a diameter that is greater than half of a diameter of said disc-like member.

12. A burner, comprising:

a burner body including an inlet opening at one end thereof and an outlet opening at a second end thereof;

a nozzle assembly disposed in said outlet opening of said burner body, said nozzle assembly including a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole, and a tube member disposed in said central hole, said tube member including an upstream end and a downstream end wherein said upstream end has a larger diameter than said downstream end.

13. The burner according to claim 12, further comprising a bracket mounted to said burner body and including a pair of radially inwardly extending lips that extend in front of said nozzle assembly.

14. The burner according to claim 12, further comprising a bracket assembly mounted to said burner body and defining a pair of pockets extending radially from said burner body and communicating with openings disposed in said burner body.

15. The burner according to claim 14, wherein said bracket assembly includes a pair of radially inwardly extending lips that extend in front of said nozzle assembly.

16. The burner according to claim 14, wherein said bracket assembly includes a bottom bracket and a top bracket that are connected to one another and encircle said burner body.

17. The burner according to claim 14, wherein said bracket assembly includes a bottom bracket and a top bracket that are welded together.

18. The burner according to claim 12, further comprising a bracket assembly mounted to said burner body, said bracket assembly including a pair of radially extending flanges with locating slots disposed in an edge thereof for locating the burner in a burner box.

19. A burner, comprising:

a burner body including an inlet opening at one end thereof and an outlet opening at a second end thereof;

a nozzle assembly disposed in said outlet opening of said burner body, said nozzle assembly including a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole, and a tube member disposed in said central hole; and

a mounting bracket assembly mounted to said burner body and defining a pair of pockets extending radially from said burner body and communicating with openings disposed in said burner body, said mounting bracket assembly including an top bracket and a bottom bracket that encircle said burner body.

20. A method of tuning a burner for use in different applications, comprising the steps of:

providing an elongated burner body having an inlet opening and an outlet opening;

mounting a nozzle assembly in said outlet opening of said elongated burner body, said nozzle assembly including a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole, and a tube member disposed in said central hole, said tube member being positioned to extend axially from a front and rear surface of said disc-like member such that an axial position thereof is predetermined based upon the burner application.

21. The method of claim 20, further comprising the steps of mounting a top and a bottom bracket to said burner body.

22. The method of claim 21, wherein said top and bottom brackets define a pair of pockets therebetween extending radially from said burner body and communicating with side openings in said burner body.